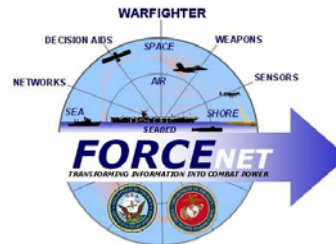




FORCEnet:

*Implementing Transformation, Joint Interoperability,
and Net-Centric Operations/Warfare*



Transforming Information Into Combat Power

FORCEnet Role of Director, Net-Centric Warfare (N71),
Office of the Deputy Chief of Naval Operations,
Warfare Requirements and Programs (N6/N7)

Presentation to

FORCEnet Engineering Conference

14 November 2005

Pete Blackledge

FORCEnet Requirements, Compliance, Congressional

Office of the Chief of Naval Operations (N71F6)

703-601-1429, peter.blackledge@navy.mil

Statement A: Approved
for public release;
Distribution is unlimited.



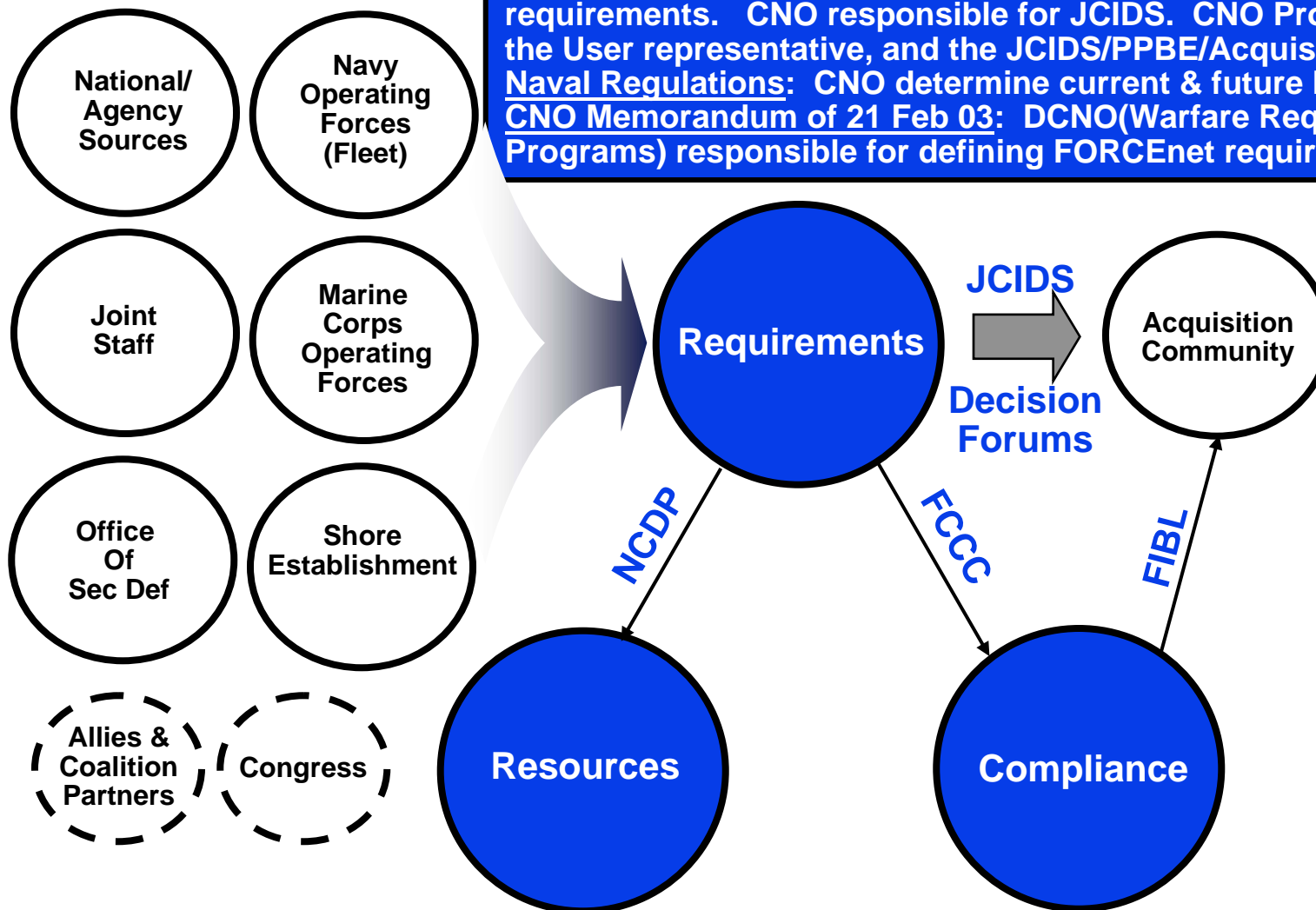
Agenda

- DCNO (Warfare Requirements and Programs) (N6/N7) Core FORCEnet Responsibilities
 - Requirements
 - Resources
 - Compliance Policy
- Developing FORCEnet Capabilities with Joint/Agency/Coalition Partners
- Focusing Science and Technology to Address FORCEnet Warfighting Gaps
- Applying FORCEnet to Global War on Terrorism
- Summary

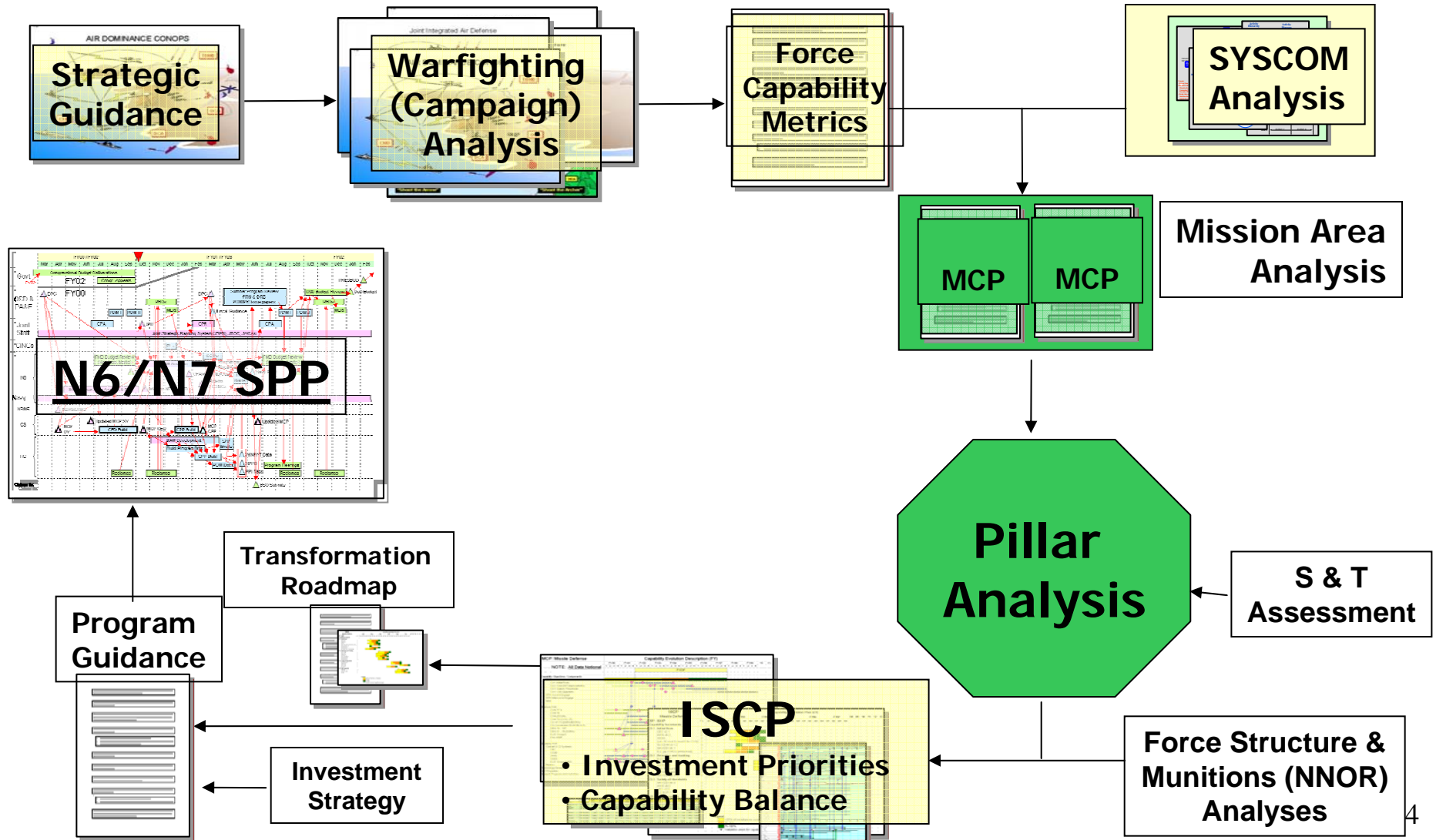


DCNO(Warfare Requirements and Programs) Core Responsibilities for FORCENet

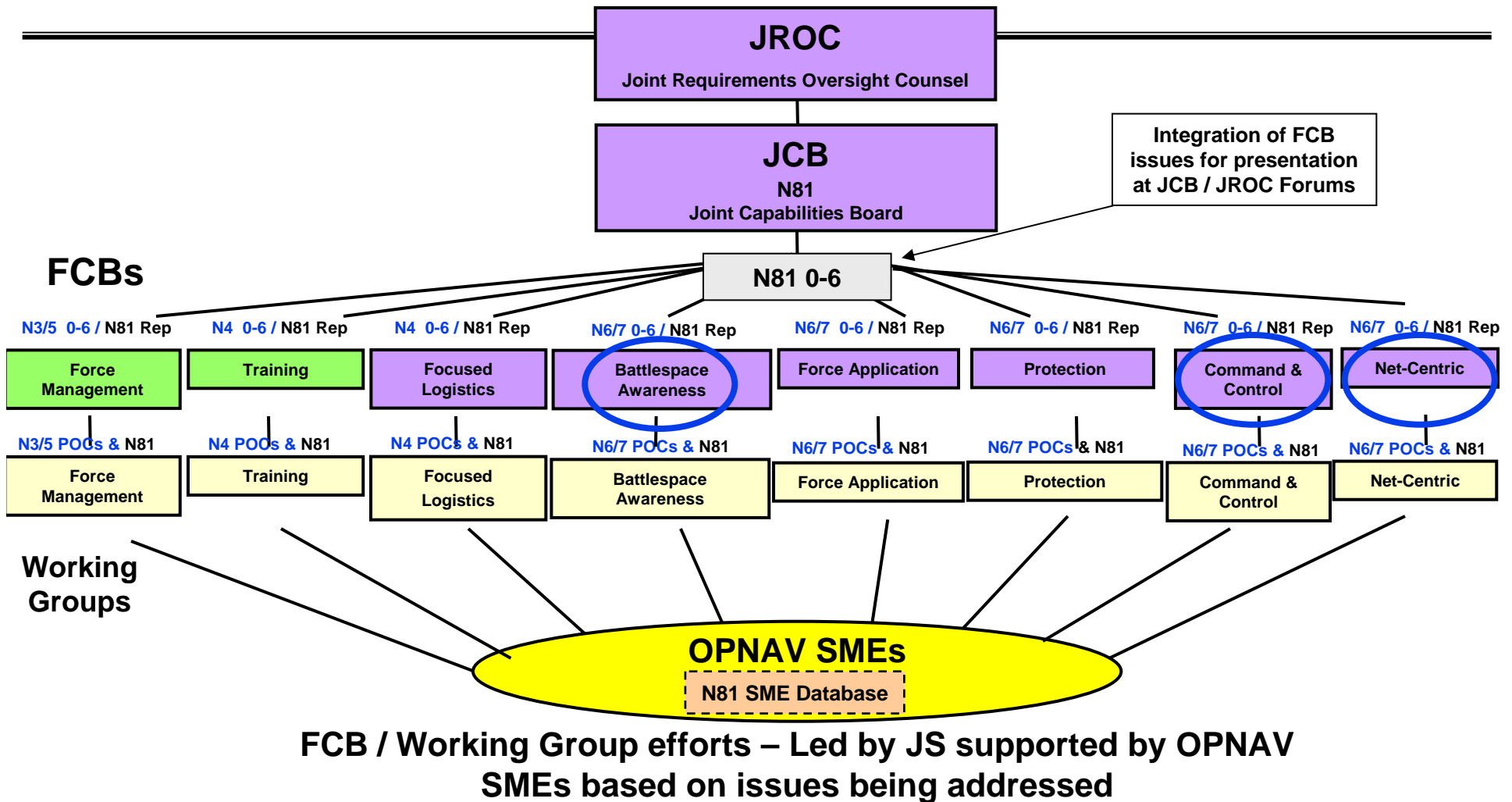
SECNAVINST 5400.15A: CNO/CMC determine requirements and priority. CNO execute resource allocation; input to acquisition decisions.
SECNAVINST 5000.2C: CNO/CMC identify, define, validate, & prioritize requirements. CNO responsible for JCIDS. CNO Program Sponsor is the User representative, and the JCIDS/PPBE/Acquisition interface.
Naval Regulations: CNO determine current & future Navy requirements.
CNO Memorandum of 21 Feb 03: DCNO(Warfare Requirements and Programs) responsible for defining FORCENet requirements & resources.



Naval Capabilities Development Process



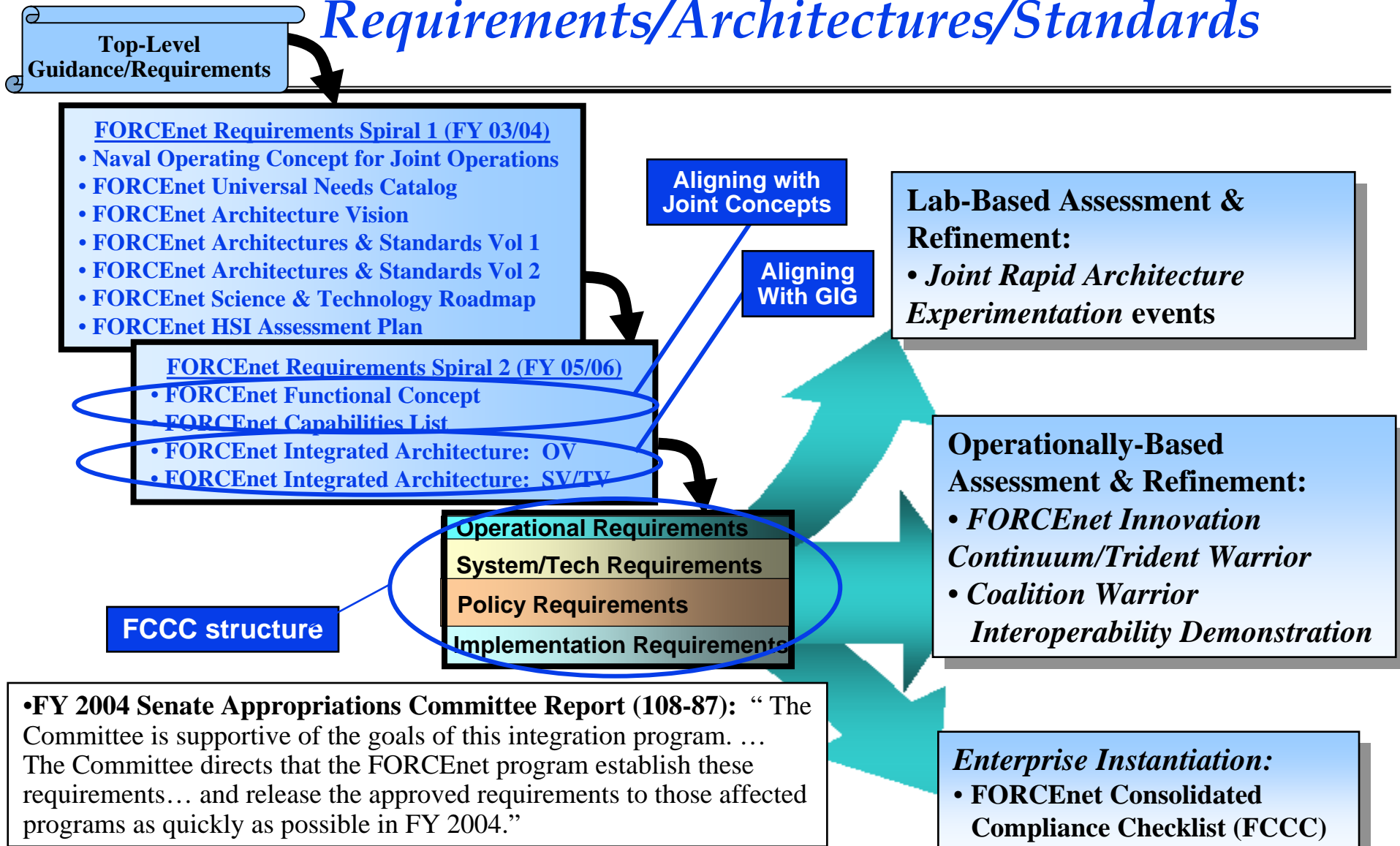
Joint Capabilities Integration & Development System (JCIDS)



JCIDS...develops Joint future warfighting capabilities



Spiral Development, Refinement, and Implementation of FORCENet Enterprise Requirements/Architectures/Standards





Transforming Information into Combat Power

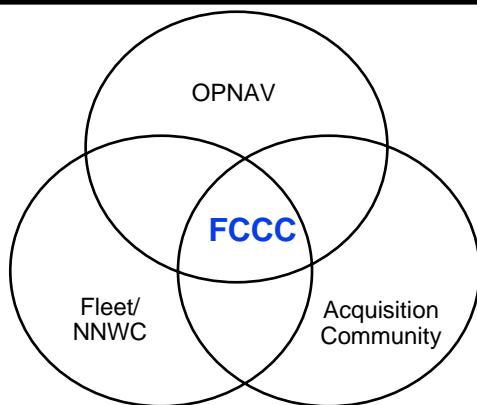
FORCEnet Consolidated Compliance Checklist

(*denotes draft)

| | Meets | Meets w/ Comment | Does Not Meet | Signature / Date |
|--|-------|---------------------|---------------------|------------------|
| FORCEnet Integrated Architecture Operational Views * | | | | |
| - OPNAV POC: Mr Duncan Macdonald (703) 601-1403 | | | | |
| FORCEnet Capabilities | | | | |
| - Ref: FORCEnet Functional Concept | | | | |
| - OPNAV POC: Mr Pete Blackledge (703) 601-1429 | | | | |

FCCC Distills Relevant DoN/DoD Joint/Net-Centric/FORCEnet Criteria:

- Operational, led by NETWARCOM
- Technical, led by FORCEnet CHENG
- Policy, led by OPNAV
- Implementation, reflecting OPNAV(N6/N7) and ASN(RD&A) policy



“We use and enforce a FORCEnet Compliance Checklist to ensure that all Navy programs are FORCEnet and GIG compliant.”

RADM T.E. Zelibor, USN
Deputy for C4I Integration and Policy
DoN Deputy CIO for Navy
Statement before House Armed Services
Committee, Subcommittee on Terrorism,
Unconventional Threats, & Capabilities
February 11, 2004

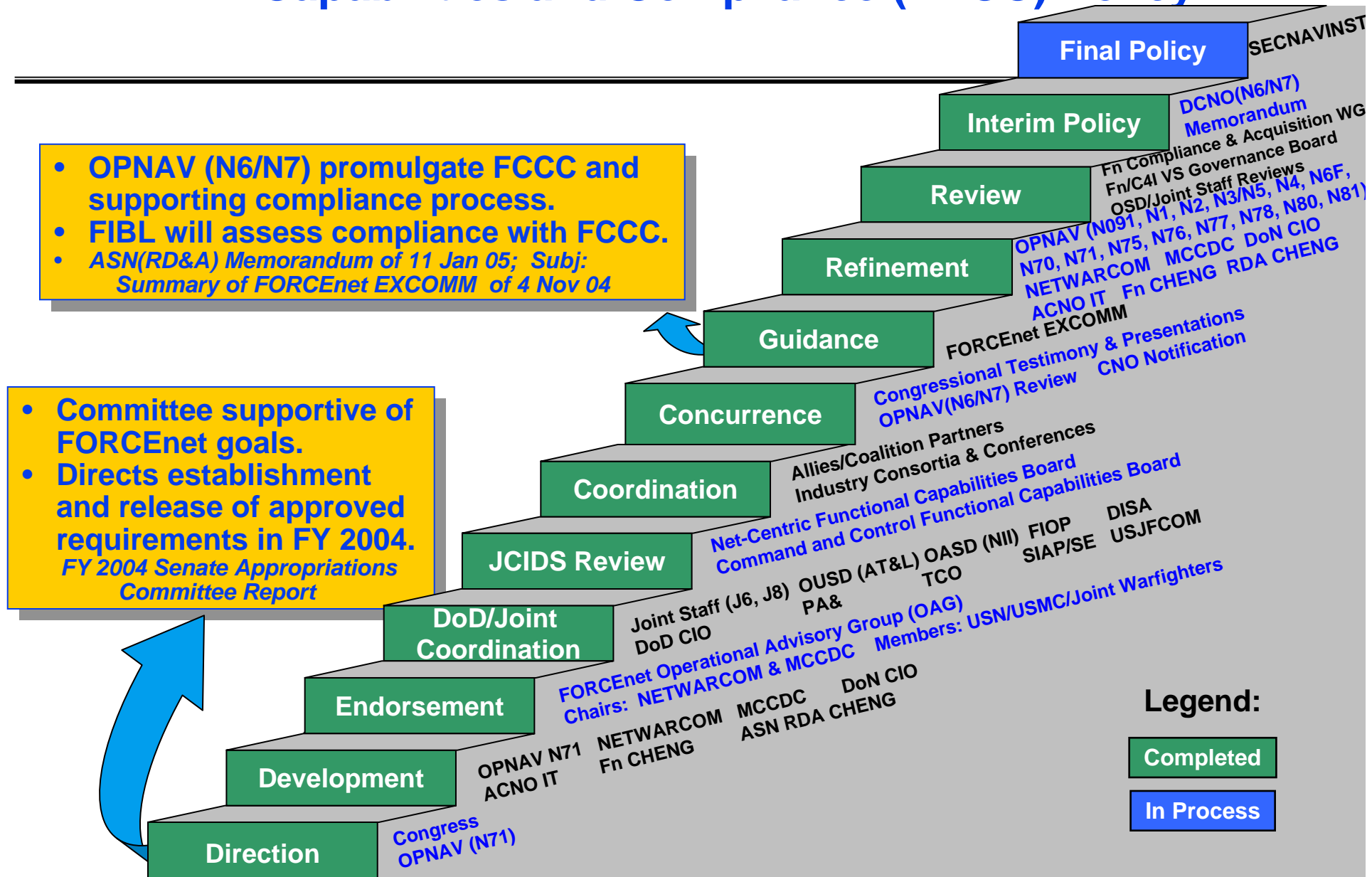
| | |
|--|--|
| 1. FORCEnet Capabilities (cont'd) | |
| - Ref: FORCEnet Capabilities List * | |
| - OPNAV POC: Dr Mike Bell (703) 601-1424 / Mr Edgar Bates (703) 601-1405 | |
| 2. FORCEnet Integrated Architecture System And Technical Views (SV, TV) * | |
| - OPNAV POC: Mr Duncan Macdonald (703) 601-1403 | |
| 3. Navy Enterprise Open Architecture (NEOA), conforming to Open Architecture Computing Environment (OACE) | |
| Technologies and Standards (T&S) and OACE Design Guide | |
| - Ref: Open Architecture Technologies & Standards / Design Guidance v1.0 | |
| - OPNAV POC: Mr Duncan Macdonald (703) 601-1403 | |
| 4. DoD Information Technology Standards Repository (DISR) | |
| - Ref: OSD M 22 Dec 04 | |
| - OPNAV POC: Mr Duncan Macdonald (703) 601-1403 | |
| 5. Internet Protocol (IP) based with transition to IPv6 planned | |
| - Ref: OSD M 22 Aug 96 | |
| - OPNAV POC: Mr Duncan Macdonald (703) 601-1403 | |
| 6. Global Information Grid (GIG) Mission Area Capabilities | |
| - Ref: Initial Capabilities Document for Global Information Grid Mission Area, JROCM 202-02 of 22 Nov 02 | |
| - OPNAV POC: Mr Bill Martin (703) 604-7046 | |
| 7. Global Information Grid (GIG) Enterprise Services (ES) | |
| - Ref: Initial Capabilities Document for Global Information Grid Enterprise Services, JROCM 051-04 of 22 Mar 04 | |
| - OPNAV POC: Mr Bill Martin (703) 604-7046 | |
| 8. Net-Centric Operations & Warfare Ref Model (NCOW RM) | |
| - Ref: Net-Centric Operations & Warfare Ref Model v1.0 | |
| - OPNAV POC: Mr Bill Martin (703) 604-7046 | |
| 9. Net-Centric Enterprise Services (NCEs) | |
| - Ref: DepSecDef Memorandum, Global Information Grid Enterprise Services (GIG ES): Core Enterprise Services – U18556-03 of 10 Nov 03 | |
| - OPNAV POC: Mr Bill Martin (703) 604-7046 | |
| 10. Net-Centric Enterprise Solutions for Interoperability (NESI) | |
| - Ref: Net-Centric Implementation Framework V1.0.1 of 04 Feb 05 | |
| - OPNAV POC: Mr Bill Martin (703) 604-7046 | |
| 11. Net Ready Key Performance Parameters (NR KPP) | |
| - Ref: CJCSI 3170.01/6212.01C | |
| - OPNAV POC: Mr Bill Martin (703) 604-7046 | |

| | Meets w/ Comment | Does Not Meet | Signature / |
|--|---------------------|---------------------|-------------|
| <input type="checkbox"/> ASD(NII) Net-Centric Checklist (NCC) - Ref: OASDNI Net-Centric Checklist (NCC) ver 2.1.3 of 12 May 04 - OPNAV POC: Mr Bill Martin (703) 604-7046 | | | |
| <input type="checkbox"/> Transformational Communications Architecture (TCA) - Ref: TCA 2.0 - OPNAV POC: CDR Jim Coffman (703) 601-1223 | | | |
| <input type="checkbox"/> Joint Tactical Radio System (JTRS) Software Compliant Architecture (SCA) - Ref: ASD(C3I) 28 Aug 98, 17 Jun 03 - OPNAV POC: Mr Joe Trainor (703) 601-1233 | | | |
| <input type="checkbox"/> Teleports - Ref: DoD Teleport Gen 2 ORD, 04 May 05 - OPNAV POC: Ms Deb Cowans, (703) 601-1224 | | | |
| <input type="checkbox"/> Joint Battlemanagement Command and Control Roadmap - Ref: JBM2 Roadmap - OPNAV POC: LCDR Jody Grady (703) 601-1422 | | | |
| <input type="checkbox"/> Human Systems Integration (HSI) - Ref: (See Attached Compliance Action List) - OPNAV POC: Ms Kathy Dufresne (703) 601-1427 | | | |
| <input type="checkbox"/> Electromagnetic Environmental Effects (E3) / Spectrum Supportability (SS) - Ref: (See Attached Compliance Action List) - OPNAV POC: Mr Dave Harris (703) 601-1361 | | | |
| <input type="checkbox"/> Information Assurance (IA) - Ref: (See Attached Compliance Action List) - OPNAV POC: CDR Michael Coleman (703) 601- 1456 | | | |
| <input type="checkbox"/> Data Strategy (DS) - Ref: (See Attached Compliance Action List) - OPNAV POC: Mr Tim Traverso (703) 855-4956 | | | |
| <input type="checkbox"/> Geospatial and Time Standards (GTS) - Ref: (See Attached Compliance Action List) - OPNAV POC: Mr Phil Vinson (703) 601-1484 | | | |
| <input type="checkbox"/> N6/N7 Memorandum, Subj: FORCEnet Requirements/ Capabilities & Compliance Policy - OPNAV POC: Mr Pete Blackledge (703) 601-1429 | | | |
| <input type="checkbox"/> ASN(RD&A) Memorandum, Subj: DoN Acquisition Policy for Implementing FORCEnet Capabilities* - OPNAV POC: Mr Pete Blackledge (703) 601-1429 | | | |

Refer all FORCEnet Consolidated Compliance Checklist comments, inquiries, and requests to:
peter.blackledge@navy.mil



Evolution of FORCEnet Consolidated Compliance Checklist (FCCC) and FORCEnet Requirements/Capabilities and Compliance (FRCC) Policy





FORCENet Requirements / Capabilities and Compliance (FRCC) Policy

*- DCNO(Warfare Requirements and Programs)(N6/N7)
FRCC Policy Memorandum of 27 May 2005 -*

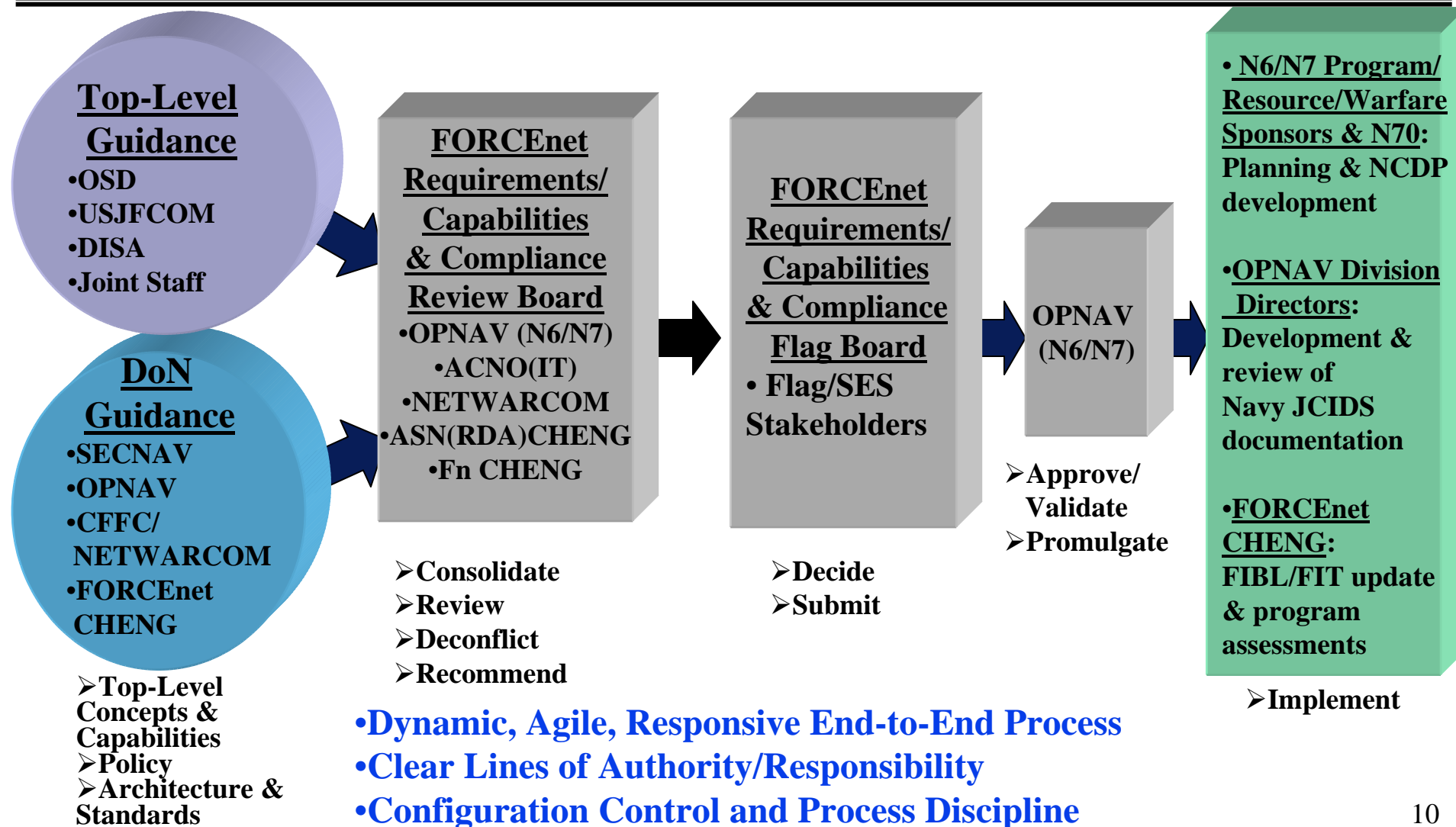
- Promulgates FCCC and a supporting compliance process
- Codifies and implements FORCENet requirements/capabilities for all systems resourced by OPNAV N6/N7
- Supports NCDP by providing validated FORCENet compliance criteria for program assessment
- Ensures FORCENet-related Navy and Joint/OSD directives and standards are captured in JCIDS documentation
- Supports FORCENet Implementation Baseline (FIBL) and FORCENet Enterprise Team (FET) evaluations of existing programs with FORCENet criteria
- Directs transition of FRCC policy to SECNAVINST

OPNAV (N71) FORCENet Website:

http://cno-n6.hq.navy.mil/Director_Net-Centric_Warfare/OPNAV_N71/FORCENet/



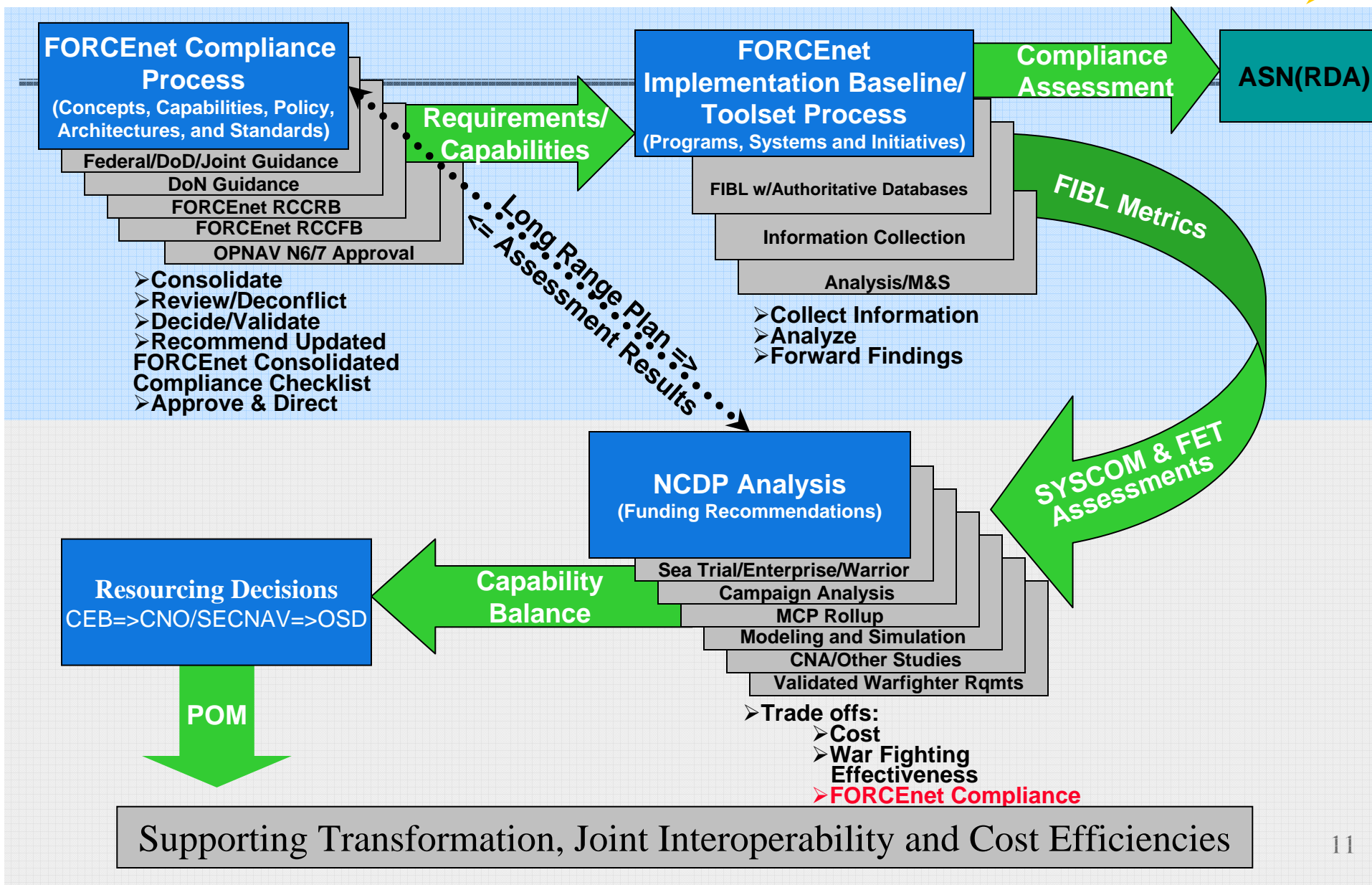
FORCENet Requirements/Capabilities and Compliance (FRCC) Process





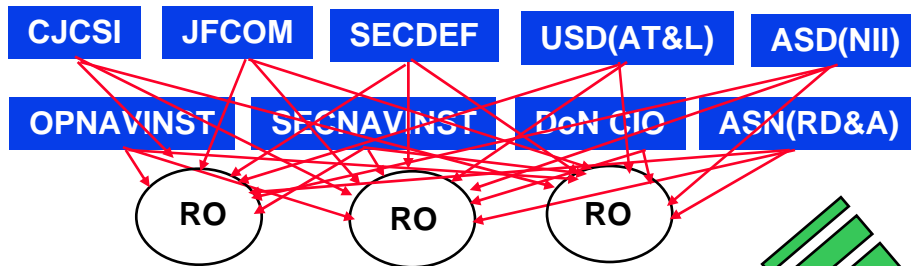
Transforming Information into Combat Power

FORCENet Compliance Support to Naval Capabilities Development Process

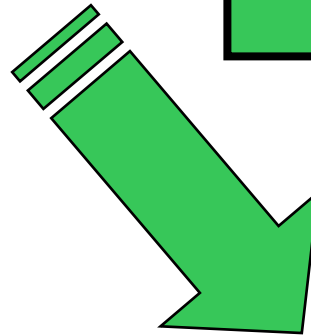




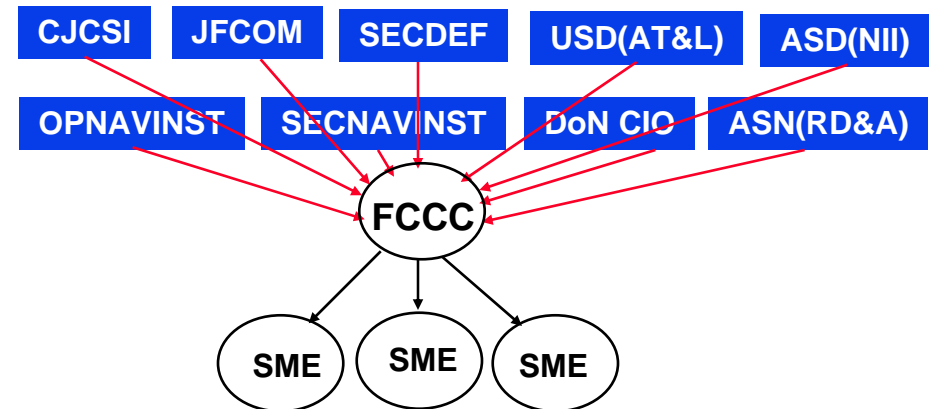
FCCC/FRCC Provides Consistent Application of a Single, Validated FORCENet Requirement Document



Prior to FCCC/FRCC Implementation:
Each Requirements Officer individually identified, interpreted, and applied top-level FORCENet/NCOW guidance for review of JCIDS documents



With FRCC/FRCC Implementation:
A single, validated FORCENet/NCOW requirements document is provided to designated Subject Matter Experts, for uniform application in JCIDS reviews



FCCC Decomposition for FIBL/PEO/PM Implementation

FCCC Policy Documents



1. Decompose Document to FCCC Requirements

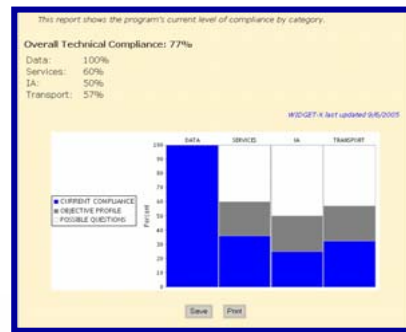
FCCC Requirement

“Describe how the system is making its data assets visible to consumers.”

Rationale – Question will identify if the application is making use of Web services to expose its data.

4. Compare Programs to Criteria

5. Calculate Compliance Profile



2. Determine Compliance Criteria

Criteria

Q04: Does the application use Web services to expose its data?

Q04.1: Does the program use UDDI?

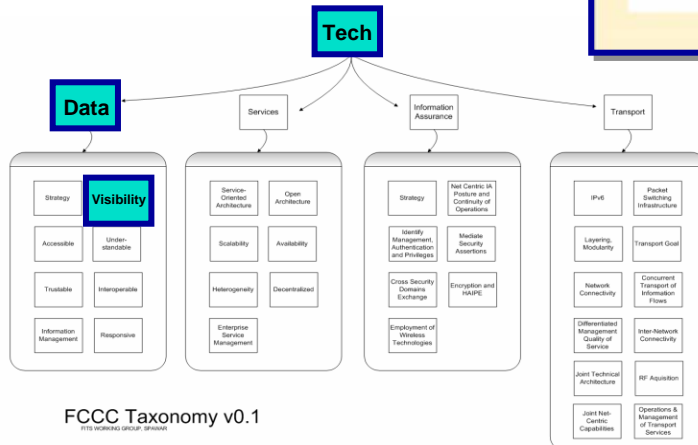
Q04.2: Does the program use SOAP?

Q04.3: Does the program use WSDL?

XML-tagged with Policy Reference, Requirement(s), and Taxonomy Info

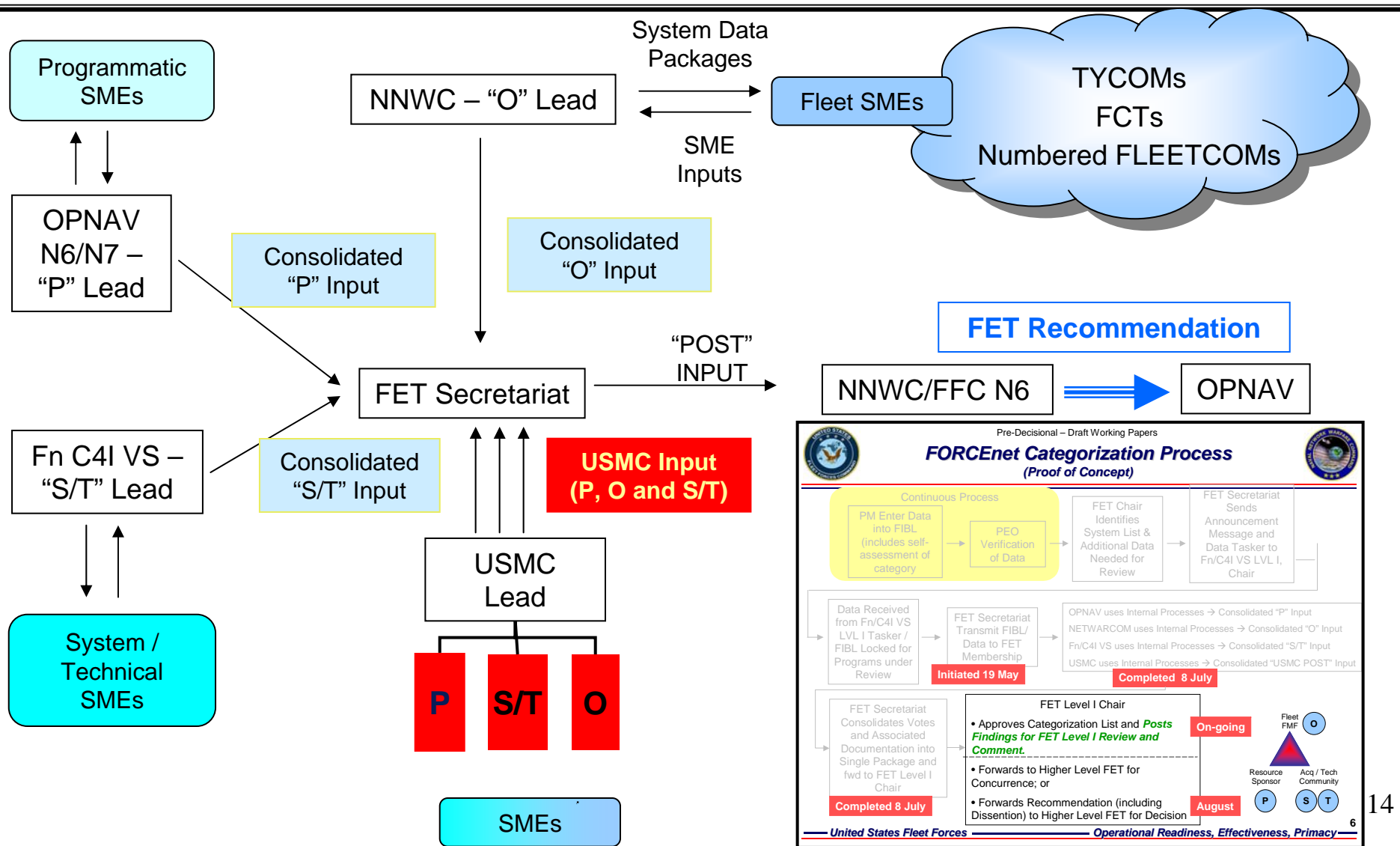
3. Trace Criteria to Taxonomy

Taxonomy

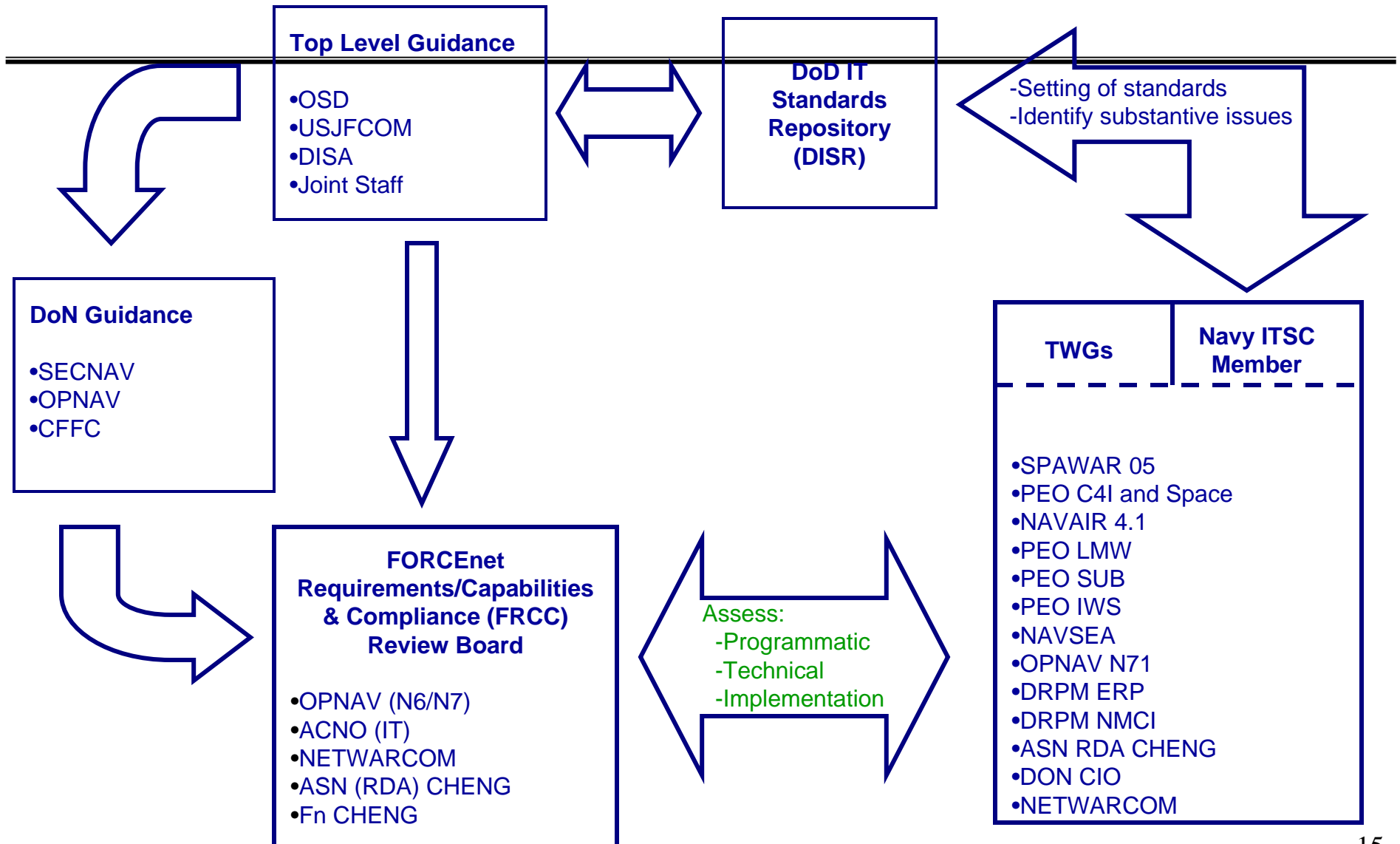




FORCEnet Enterprise Team (FET) Categorization Process



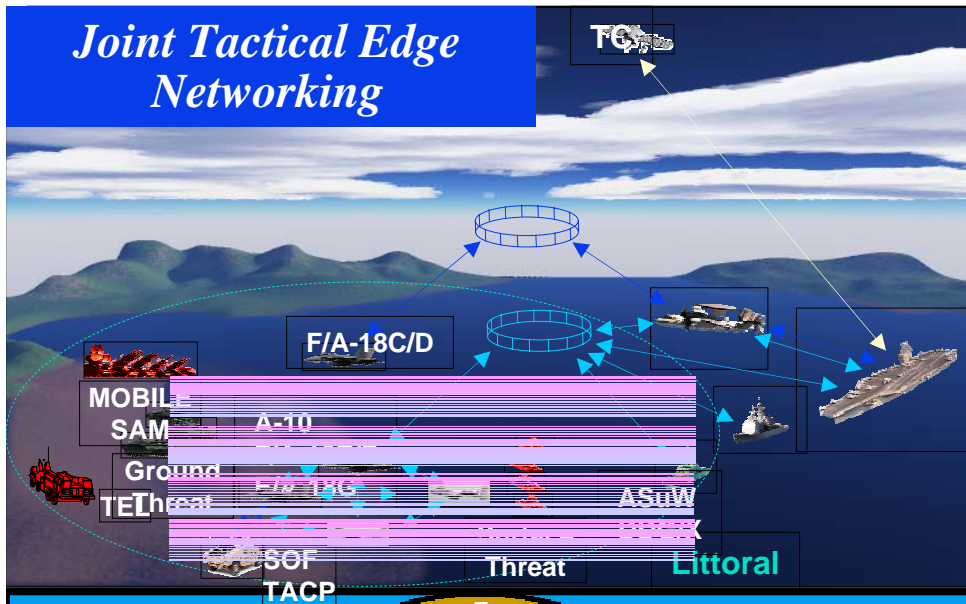
Aligning Navy Net-Centric Standards under FRCC Process



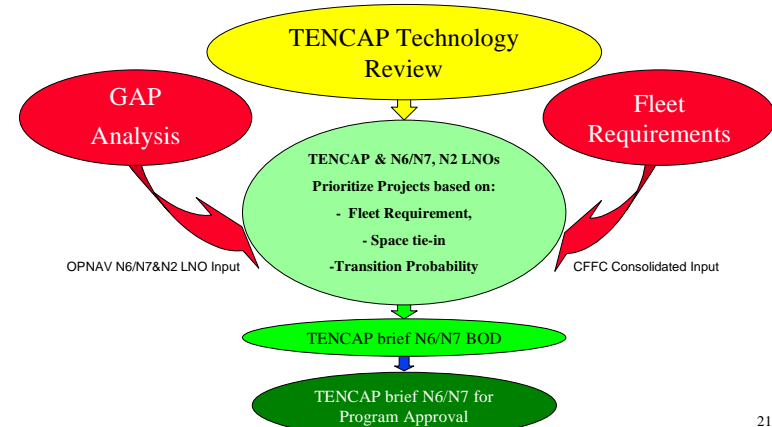


Developing FORCENet Capabilities with Joint/Agency/Coalition Partners

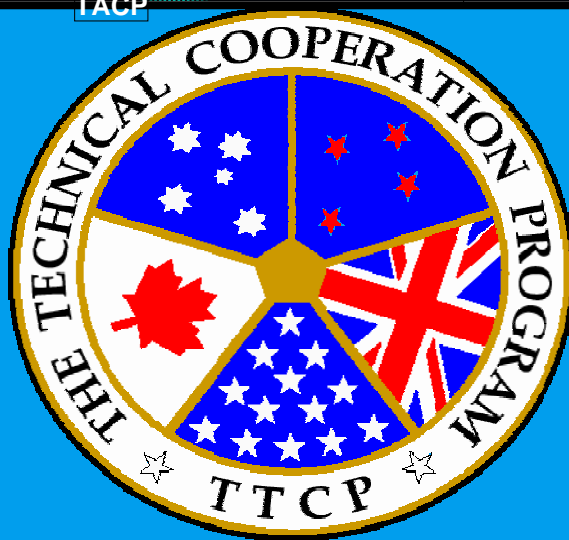
Joint Tactical Edge Networking



Navy Tactical Exploitation of National Capabilities (TENCAP)



21



Coalition Warrior Interoperability Demonstration (CWID)



FORCENet Facilitates Converging Capabilities to Common Solutions



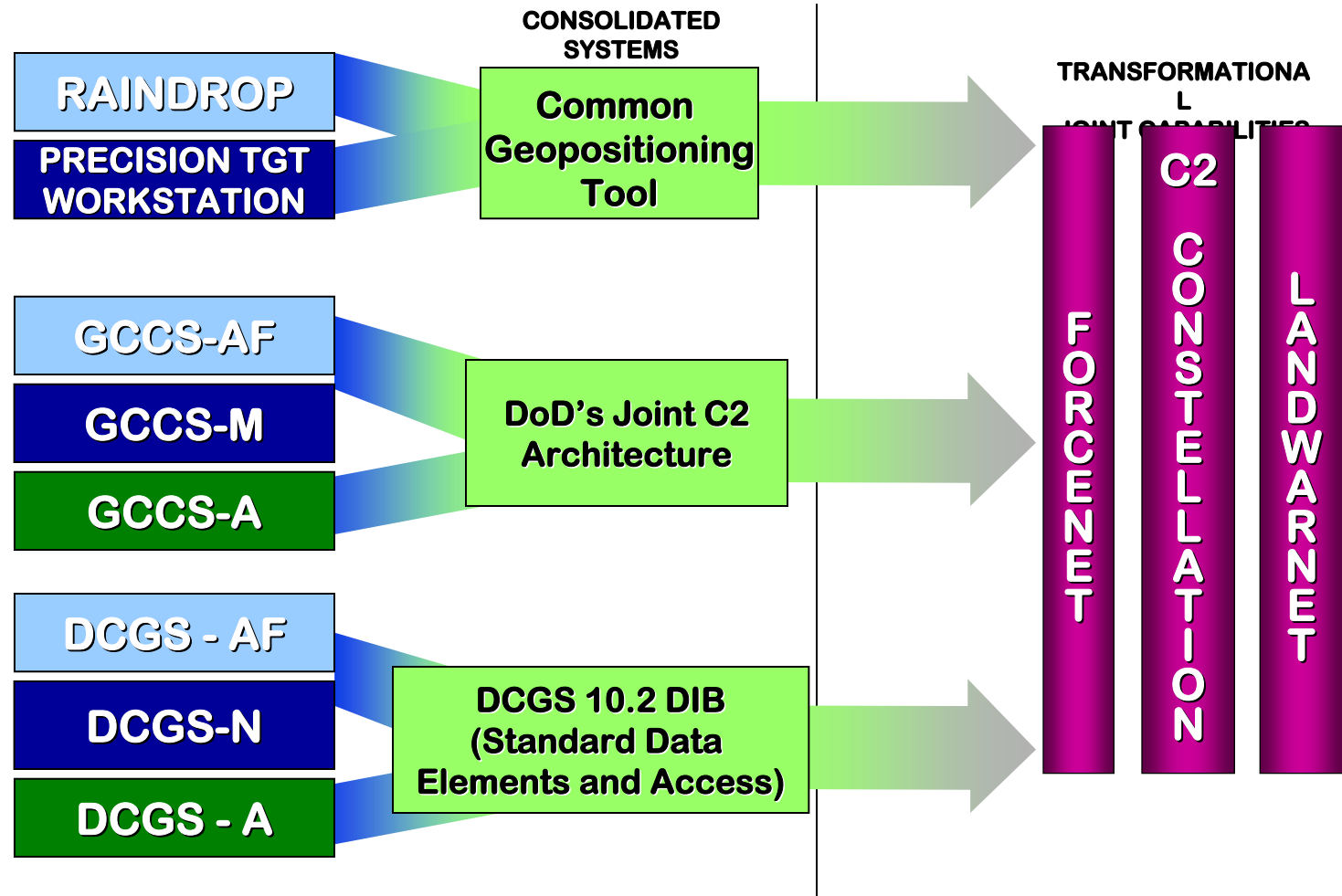
**AIM POINT
MENSURATION**



**COMMANDER'S
DECISION**



**ISR
FUSION**

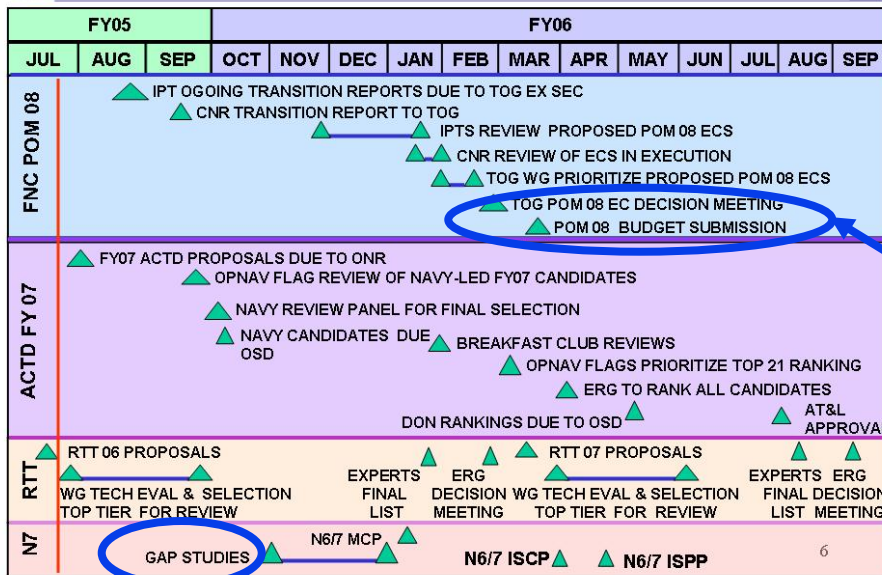




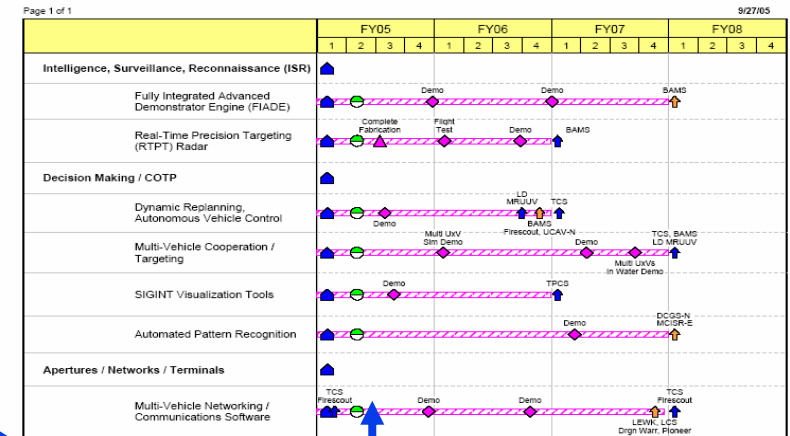
Focusing Science and Technology (S&T) to Address FORCENET Warfighting Gaps

FORCENET
Science & Technology (S&T) Roadmap
FNT-FY04-05

Science & Technology (S&T) Timelines



TOG



S&T Investment Strategy Comms architecture



Description of the Required Capabilities

- Message prioritization
- Efficient packaging

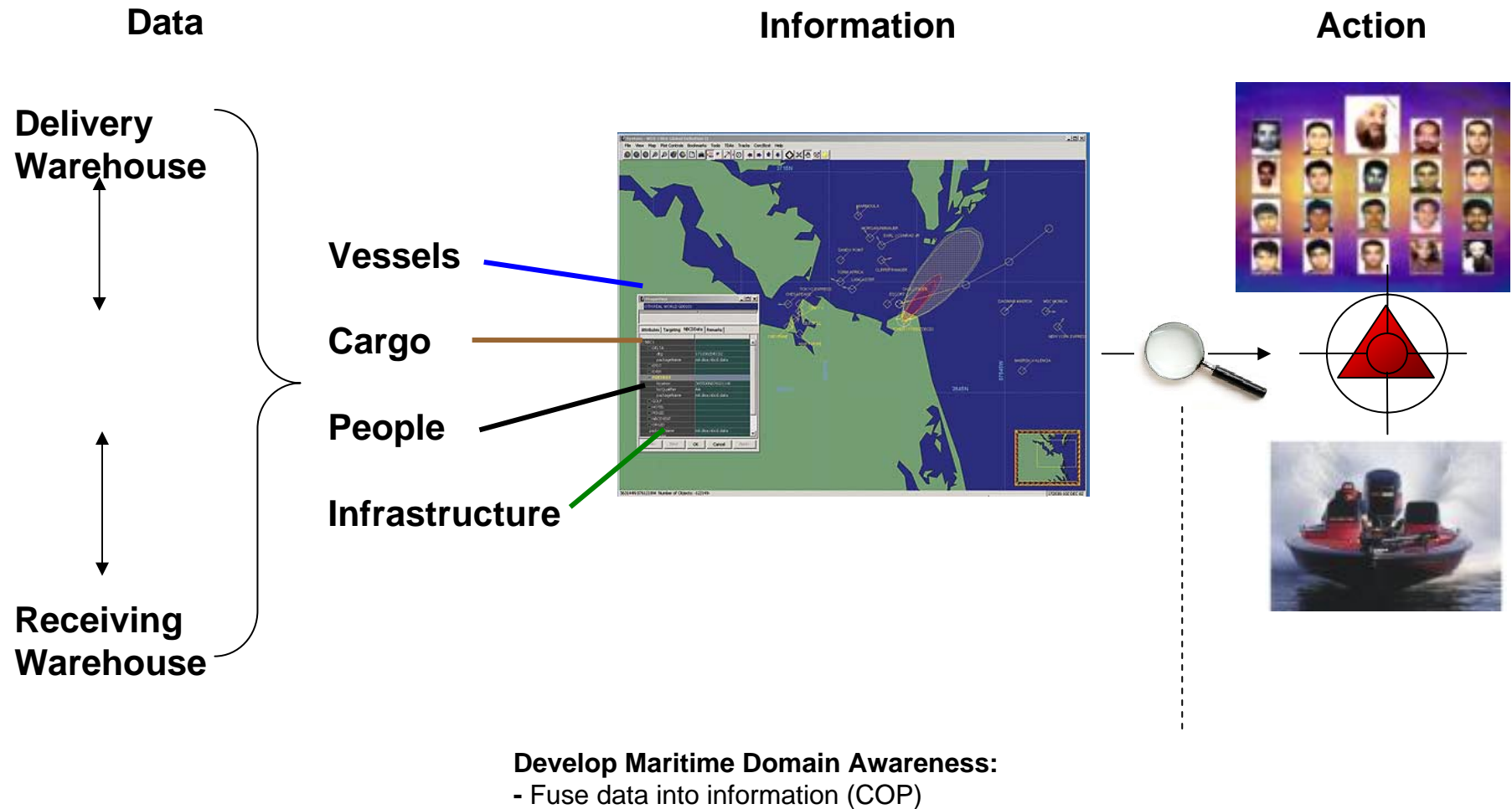
FORCENET Focus Areas

- (1) Common, Persistent Maritime picture - improving shared situational awareness across the force
- (2) Computer Network Defense and Information Assurance - assured info
- (3) Ubiquitous communications and network infrastructure - bandwidth management, IPv6, etc.**
- (4) Data link management & architecture - improving data link throughput
- (5) Joint Combat ID - IFF and Blue Force Tracking
- (6) Persistent and pervasive ISR

| Program | TRANSFORMATIONAL IMPACT | Investment FYDP |
|-------------------------|---|-----------------|
| EC-4A | Joint Maritime Comms & Networking | \$ 13.9M |
| EC-4B | Advanced Comms for FORCENET | 11.3M |
| EC-4C | GIG-compliant Networking | 55.5M |
| DARPA... DAMUL | Web-enabled software communication | - |
| Optical networks | Photonics for network architecture/hardware | - |
| Total Investment | | \$ 80.7 |

Applying FORCEnet to Global War on Terrorism

- Establishing Global Maritime Domain Awareness -





Summary

- DCNO, Warfare Requirements and Programs (N6/N7) is responsible for FORCENet requirements, resources, and compliance policy; N71 is N6/N7 lead
 - N6/N7 is Program/Resource/Warfare Sponsor for FORCENet and warfare programs
- FORCENet enterprise requirements, contained in FCCC, are being instantiated into Navy programs via the JCIDS process and into POM/Budget via the NCDP
 - Acquisition Community is instantiating FCCC via FIBL
 - Operational Community instantiating FCCC via FET and Sea Trial
- N6/N7 is working in related areas to enhance FORCENet warfighting capability and efficiency
 - Serves as a primary FORCENet interface with the Joint Staff and Congress
 - Working across DoD and National Agencies, and with Allies/Coalition Partners

“Compliance of individual Navy programs, systems, and initiatives with joint interoperability guidance is critical to Navy transformation from platform-centric standalone systems to a capabilities-based NCO/W environment.”

DCNO, Warfare Requirements and Programs (N6/N7)

Memorandum of 27 May 2005; Subj: FORCENet Requirements / Capabilities and Compliance Policy